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ABSTRACT

The report describes a 6-week workshop which provided cross-training to 11 trade and industry vocational teachers and 104 secondary special education teachers. Workshop goals and objectives are reviewed and training activities explained. Evaluation data is said to indicate positive influences on the attitude of participating vocational teachers towards handicapped students and mainstreaming and increased positive attitudes between special and vocational educators. Among 11 appendixes are sample workshop evaluation forms and vocational lesson plans. (CL)

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CROSS-TRAINING VOCATIONAL & SPECIAL EDUCATORS:

REPORT OF A WORKSHOP

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INTRODUCTION

Recent legislation on behalf of the handicapped student has prompted an emphasis on preparing other teachers and educators with the skills and knowledges needed to work with these students. Federal and state funding in the area of personnel preparation has been directed toward preparing the regular and, in particular, the vocational teacher to work with handicapped students.

Unfortunately, little or no emphasis has been placed on cross-training the special education teacher.

What would happen if we were to cooperatively cross-train a group of special education teachers? This report is based on the outcome of such a cooperative cross-training workshop between a group of 11 Trade and Industry vocational teachers, and 104 secondary special education teachers.

The concept of cross-training is not new. In a special project report (Sankovsky, 1973), it was noted that in the evaluation series of a three week workshop which was attended simultaneously by special education and vocational education teachers, in addition to rehabilitation counselors and evaluators, there were frequent references to the development of a better understanding of each other's roles and responsibilities.

It is likely that there have been other workshops or training sessions which were designed to provide cross-training across a number of disciplines. If a genuine and effective interdisciplinary approach to providing educational services to our handicapped students is to be realized, a greater emphasis must be placed on providing an awareness of the various roles, responsibilities, and activities of the various disciplines involved.

How It All Began - RVI

The Related Vocational Instruction program, or RVI, is a statewide model in Georgia for the delivery of services to secondary handicapped students in regular vocational education programs (Gill, 1978).

The model is essentially a structured approach to the federally mandated requirement for mainstreaming. The RVI program was initiated in the Fall of 1977, and its purpose is to provide a source of instructional support to handicapped students and their vocational instructors.

The RVI teacher is primarily a secondary special education teacher who has been assigned directly to the vocational program with full-time responsibility for working with all vocational teachers in the school setting and the handicapped students enrolled in the vocational education classes.

This approach serves two major purposes: (1) It combines the expertise of both vocational and special education and (2) it provides an opportunity for parallel teaching and enhances the mainstreaming effort. In brief, the special education or RVI teacher's job is to mirror, in a resource setting, the learning that takes place in the vocational programs that are attended by the handicapped students.

The RVI program in Georgia began in 83 school systems and now consists of more than 110 programs. These programs are situated in local high schools that provide a comprehensive offering of vocational training.

What makes the RVI concept in Georgia different from the many other exemplary cooperative vocational-special education programs across the country is that fact that the RVI model is a genuine statewide model, monitored by an RVI project coordinator at Georgia Southern College. Cooperative agreements between the local school systems and the RVI program have been established and are followed. The local school systems have the option to become involved

or to terminate their involvement in the cooperative program. The growth in the number of school systems which voluntarily join the model program is perhaps an indication of the success of the overall RVI model. The RVI model currently encompasses more than two-thirds of the comprehensive high school programs in the state.

The Need

Although there were a series of regional workshops sponsored for the RVI staff, in addition to the individual consultations provided through the scheduled program reviews, there was a perceived need to provide a more comprehensive training program for RVI teachers.

One area of concern noted by many of the RVI teachers was the unfamiliarity with the nature and content of the vocational programs in which their students were enrolled.

A review of the data from the RVI's first year of operation indicated that approximately 56 percent of the handicapped students in RVI were enrolled in Trade and Industrial education. Of this 56 percent, 30 percent were enrolled in the construction trades cluster of carpentry, masonry and plumbing.

A curriculum support planning model was developed with three specific purposes: (1) to break a regular vocational area down into small teachable units; (2) to develop a set of teaching plans that could be utilized by both vocational and RVI teachers; (3) to facilitate joint curriculum planning, modification and development. The next step was to operationalize the curriculum support plan.

The Workshop

In the Summer of 1978, a six week workshop was conducted at Georgia Southern College. Participants at the workshop included all RVI teachers in

the State and a selected group of 11 Trade and Industry teachers from Georgia. To insure RVI teacher participation, an RVI teacher certification was developed and approved by the State Board of Education. This certification requirement could be met by attending the six week workshop and by participating in a one year internship. Course credit was established for the workshop and for the internship. This procedure assured full participation by RVI teachers.

In the workshop setting, the role of the RVI teacher was to identify and develop curriculum support plans that could be used in the construction trades cluster. The role of the construction trades T & I teachers was two-fold. First, their responsibility was to familiarize the RVI teachers with the basic content of construction trades. Second, they were to assist in the development of curriculum support plans to be utilized in their areas. This strategy promoted a mutual benefit and a shared experience. RVI teachers began to benefit from the vocational expertise in terms of content, and the construction trades teachers began to benefit from the special education expertise in terms of learning the technology and procedures for working with handicapped students.

Goals and Objectives of the Workshop

Based on a series of planning meetings which included outside consultants, the projected construction trades teachers and RVI teachers, the following series of goals and objectives were established:

GOALS: Participants will develop the competencies necessary to provide adequate support to handicapped students in the secondary vocational setting.

Participants will develop the competencies necessary to modify existing secondary level vocational curriculum for use with

the handicapped.

Participants will fulfill the requirements of supplemental field certification necessary for the Related Vocational Instruction teaching position.

OBJECTIVES:

ATTITUDES - As a result of the workshop experience, the attitudes of both Related Vocational Instructors and construction trades personnel working with the handicapped in the vocational setting will be positively influenced.

Based on the workshop experience, the inter-relationship between Related Vocational and construction trades personnel will be enhanced.

KNOWLEDGES - Related Vocational Instructors will be able to demonstrate knowledge of the construction trades curriculum content.

Related Vocational and construction trades instructors will demonstrate knowledge of curriculum support planning for handicapped students in construction trades programs.

Construction trades and Related Vocational instructors will develop additional knowledges in the areas of:

a. curriculum development
b. vocational assessment
c. vocational adjustment
d. attitudes and motivation
e. joint development of IEPs.

Through continuous interaction, construction trades instructors will learn basic characteristics, learning styles, and procedures for working with the handicapped in the vocational setting.

SKILLS - Related Vocational and construction trades personnel will develop curriculum support plans relevant to the handicapped.

Construction trades and Related Vocational instructors will develop skills in more effectively and efficiently dealing with students who have special vocational needs, such as: communication skills, interpersonal skills, and student materials development skills.

The remainder of this report will provide information on the activities of the workshop, the structure of the training sessions, workshop outcomes both on a short and long term basis, and some implications for future training. For the reader's convenience some of the forms and formats used during the training session have been included in the appendices.

Activities During Workshop

The workshop was conducted on the campus of Georgia Southern College for a period of six weeks, approximately eight hours per day, five days per week. It involved all Related Vocational instructors and selected construction trades teachers throughout the State of Georgia. Construction trades teachers were utilized in the effort because previous program data showed that of the handicapped population served in vocational education, 30 percent were enrolled in construction trades programs.

The workshop began with a series of mini-courses in the areas of carpentry, masonry and plumbing. Each mini-course was team-taught by 3 construction trades teachers. A pre test was administered prior to each mini-course to determine the level of existing knowledge by each of the RVI teachers in these areas. A post test was administered after each mini-course to determine the extent of knowledge acquired during the mini-course. The difference between pre and post measures will be discussed in the evaluation section.

At the conclusion of the mini-courses, the RVI teachers and construction trades teachers were introduced to a task analysis-type curriculum modifica-

tion model (Gill, 1978).

After a familiarization with the model, the participants were randomly assigned into 10 groups. Each group had two group leaders: one RVI teacher and one construction trades instructor. The RVI teachers selected for group leaders had previous experience and exposure to the curriculum modification model.

It was originally intended that a task listing for the areas of carpentry, masonry and plumbing would be developed as a part of the cooperative work session. This procedure would have further provided the RVI teacher with a better understanding of the construction area and provided additional information on task sequence and task difficulty.

However, in consideration of the time that it would normally take to develop a comprehensive task breakdown for these three areas, the task listing was developed prior to the actual workshop in coordination with the construction trade teachers. The development of the task listing was based on the existing Construction Cluster Curriculum for the State developed by The University of Georgia. A total of 1100 tasks were specified across the three areas.

The list of predetermined tasks became the basis for the development of learning plans and supplemental learning plans. The learning plan was designed for use by the vocational instructor and the supplemental learning plan was designed for use by the RVI teacher. (See appendix A for a sample copy of the learning plan, and appendix B for a sample copy of the supplemental learning plan.)

Approximately 1100 such sets of support plans were developed in the areas of masonry, carpentry and plumbing.

In order to facilitate the development of the learning and supplemental

learning plans, a "memory jogger" was employed with regard to the components "performance-based task activities" (appendix C), "essential math operations" (appendix D), and "essential coordinated movements" (appendix E).

The sets of support plans are now being finalized and will be available on a cost recovery basis by Spring of 1979.

Each set of support plans will become the basis for the development of an individualized student learning packet. An example of the learning packet is available in appendix F.

The student instructional packets will be developed by the participating RVI teachers as part of their one year internship responsibilities. The model for the instructional packet has been adopted from the Career Related Instruction model developed by the Capital Area Career Center, Mason, Michigan.

In addition to the regular group work sessions which focused on the development of the learning plans, the participants were provided a variety of topical content sessions that covered such areas as: Vocational assessment, vocational adjustment, learning styles and characteristics of the handicapped, resource materials, motivation of the special needs learner and other topics.

An optional seminar session was available two nights per week, and topics of interest pertaining to vocational preparation of the handicapped were discussed in an informal manner.

WORKSHOP EVALUATION

Workshop evaluation was based on several instruments that we administered to all participants. Included in these instruments was a pre and post competency test in the three T & I areas of masonry, carpentry and plumbing, an Attitude Toward Mainstreaming Scale and comprehensive final examination on related content sessions.

Three additional evaluation instruments were used: A state workshop evaluation form, a workshop improvement form, and a college workshop evaluation form.

An additional evaluation of the RVI teacher performances was based on the results of a group participation rating sheet. A final evaluation of the participants was based or a product evaluation.

Following is a brief narrative of the various evaluation strategies, procedures and findings.

Mini-courses

At the beginning of the workshop, the trade and industrial teachers from the construction trades program presented one day mini-content sessions in the areas of carpentry, masonry and plumbing. These mini-sessions were designed to familiarize the RVI or special education teacher with five parts of each area: terminology, tools, materials, related occupations and skill operations. The mean pre test score for RVI personnel, considering all three areas of carpentry, masonry and plumbing was 31 on a 100 point scale. The mean post test score, considering all areas, was 84 on a 100 point scale.

Statistically, the results between the pre and post scores were

highly significant and the intent of the mini-courses was achieved.

Teacher Attitudes Toward the Handicapped

As part of the workshop evaluation, teacher attitudes toward handicapped students and toward mainstreaming handicapped students were assessed on a pre/post workshop basis. After a thorough review of existing attitudes toward the handicapped scales and surveys, the Special Vocational Needs Attitudes Scale (SVNA) was selected. This scale was originally developed and field tested by Meers (1977) as part of a statewide project for assisting vocational teachers to deal with the educationally disadvantaged, handicapped and minorities. Only the handicapped section of the scale was used in this workshop. (See appendix G for a copy of this scale.)

The SVNA scale uses a Likert-type response pattern on a six point scale ranging from Strongly Agree to Strongly Disagree. Thirty-four statements regarding the handicapped and mainstreaming handicapped students are included in the handicapped section of the scale.

A T-test analysis of the responses to the SVNA scale as provided by a random sample of 22 of the RVI teachers and ten of the T & I teachers indicated that the two samples differed significantly on 13 of the 34 responses on the pre test at at least the .05 level. A post test analysis between the groups revealed a significant difference in response patterns on three of the 34 questions.

In general, the responses of both the RVI and T & I teachers were based on the more positive attitudes of the RVI teachers as opposed to the less positive attitudes of T & I teachers.

An overall analysis indicated that the attitudes of T & I teachers as a group had a tendency to become more like the attitudes of special education

RVI teachers. Significant changes in attitudes of the T & I teacher group were noted on ten of the survey statements. On each of the following ten survey statements, the T & I teachers reflected a significantly more positive attitude toward handicapped students as a result of the pre/post measures.

1. Handicapped learners have the same right to an education as normal children.
2. I believe that a good regular classroom teacher should be able to provide handicapped students with many valuable and worthwhile experiences.
3. I could see myself having a handicapped person as a true friend.
4. A handicapped person can live just as happy a life as a normal person.
5. Most of our social problems would be solved if we could somehow get rid of the handicapped people.
6. It is unfair to the normal students to have handicapped students in the same classroom.
7. For the teacher, there is very little intellectual stimulation from handicapped learners.
8. Having a handicapped child is the price some people pay for evil living.
9. Because of their condition, the handicapped are easily led into criminal ways.
10. It is a waste of the taxpayer's money to attempt to teach handicapped students within the regular classroom.

As noted earlier in this report, the T & I teachers for the workshop sessions were selected on a voluntary basis, and there may have already existed a more positive attitude toward these handicapped students.

A follow-up or repeated survey of the T & I teachers will be conducted to determine if these attitude changes are maintained.

In summary, one of the impacts of the workshop sessions was to facilitate a more positive attitude of the participating vocational teachers towards handicapped students and mainstreaming. It should be noted again that the original attitudes of the vocational teachers were not negative, but were more positively influenced. It is difficult to specify cause and effect relationships in this report since many of the contributing variables were not scientifically controlled.

However, based on the informal discussions with the RVI teachers and the T & I teachers, there is evidence to believe that positive attitudes toward the handicapped by the vocational teachers were influenced by their close interaction with special education RVI teachers, and a better understanding of the role of the RVI teacher and the handicapped students they served.

RVI and T & I Teacher Comments

As part of the formal evaluation of the workshop sessions, the participating teachers were provided the opportunity for additional comments. Their comments clustered around four basic areas: interrelationships, T & I content, group work on tasks, resources.

With regard to interrelationships, the teachers expressed a very positive feeling about involving both special RVI teachers and T & I vocational teachers in the same workshop sessions. One teacher comment summarized this sentiment: "I feel the interrelationship which developed between RVI and T & I teachers will benefit the program immensely".

Comments regarding the T & I content sessions were very favorable. The RVI teachers who participated in the mini-skills training sessions in masonry, carpentry and plumbing consistently reported these sessions as the most

practical, informative and useful sessions.

Comments on the small group work for developing learning plans and supplemental learning plans for each of the specific performance tasks identified in masonry, carpentry and plumbing were very favorable. The small group work allowed for individual participation and the development of a set of materials that both RVI and T & I teachers perceived as useful and practical. One teacher comment summed up the many responses in this area: "Group work on performance tasks was one of the best experiences I've had".

With regard to resources and resource material, the RVI teachers expressed a need for more information sessions in this area. Their responsibility for providing support services for handicapped students in vocational areas was limited without the information on materials and resources already developed or modified for use with students who had special needs. One RVI teacher's comment reflected the sentiment of the responses with regard to the resource material session: "With the background information, especially in the area of resources, I think the RVI program can do great service to handicapped students".

WORKSHOP FOLLOW-UP

Since the workshop was conducted during the summer, approximately 45 of the 110 Related Vocational Instruction Programs throughout the state have been afforded on-site visitation by Georgia Southern project staff. Ultimately, all programs will be visited or monitored using a standard document (appendix H) aimed at program process. During the visitations to date, several items relating to competencies or knowledges obtained during the workshop have surfaced. Among them: teacher feedback, administrative feedback, instructional improvements, and some indirect outcomes.

Teacher feedback

More than seventy percent of the RVI teachers visited at this point in time indicate that they feel more comfortable in dealing with their construction trades instructors because they now possess a working knowledge of the area in which they are to provide instructional support. This factor, in their opinion, has enabled the concept of mainstreaming to become more of a practical process rather than a philosophical practice. Vocational instructors, on the other hand, seem to feel that they are better equipped to deal with all students.

Administrative feedback

Both special education and vocational administrators have commented that the cooperative relationships between their respective disciplines is beginning to flourish rather than simply exist, and more importantly, that they themselves are being "caught-up" in the developing involvement.

Indirect outcomes

The most significant indirect outcome is that the curriculum modification model used for the construction trade area has transferred to other vocational program areas. Teachers also report that their communication and facilitation with other teachers has been enhanced. The project staff has also noted a marked improvement in the RVI teacher's self-confidence in providing direct instructional support.

Follow-Through

For add-on certification purposes of RVI personnel, workshop participants are required to complete a 5 quarter hour college sponsored internship. The internship is designed to supplement the workshop, and is composed of four components. During the internship, each program will be visited approximately twice a year.

1. Given a standard format (see appendix I), develop at least 2 student modules for use in construction trades.
2. Given a standard format (see appendix J), list at least 100 performance tasks for an area other than construction trades.
3. Given a standard format (see appendix K), plan and conduct at least one in-service session for vocational education teachers in the area of vocational programming for the handicapped.
4. Choose one of the following:
   A. Develop 25 sets of learning and supplemental learning plans related to a task listing completed in number 2 of internship. (For a sample set of learning and supplemental learning plans, see appendix A and B.)
   B. Develop a materials list (audio visual and student material) together with a regular vocational instructor.
   C. Conduct and prepare a report on an approved project.

A subsequent report will follow that details the specific outcomes and activities of the internship.

SOME IMPLICATIONS

Based on the immediate success of the workshop and on anticipated program improvement and development, we would strongly urge the cross-training of vocational and special educators across all vocational service areas. A federal personnel preparation grant has already been prepared and submitted by one state to train all secondary special education teachers and supervisors across the six traditional vocational service areas of agribusiness, home economics, business and office education, health occupations education, trade and industrial education, and distributive education. The ultimate impact of this cross-training is more effective and efficient programming for handicapped youth in vocational education programs.

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Gill, D. "The Related Vocational Instructional Program: Georgia's Approach to Vocational Education for the Handicapped at the Secondary Level", Georgia Southern College, Statesboro, Georgia, 1978.

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Meers, G. "Development and Implementation of Program Models for Assisting Vocational Teachers in Dealing with the Educationally Disadvantaged, Handicapped and Minorities", University of Lincoln, Nebraska, June, 1977.

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APPENDICES

APPENDIX A

Instructional Unit:

Spreading mortar

Learning Plan

Task No. #1

Performance Task

Mixing mortar

Performance-Based Task Activities

The student will:

1. add appropriate ingredients to mortar box;
2. mix ingredients together.

Performance-Based Task Check

Given appropriate materials, the student will be able to mix mortar to the proper consistency.

APPENDIX B

Instructional Unit:

Spreading mortar

Supplemental Learning Plan Task No. #1

Performance Task

Mixing mortar

Task Terminology

- sand
- shovel
- hoe
- mortar mix
- mortar
- carotex
- consistency
- temper
- mortar box
- wheel barrow
- water
- ingredients
- masonry cement
- mixer
- mixture

Essential Math Operations

- counting
- proportions
- liquid and solid measures

Essential Coordinated Movements and Related Concepts

- precision working
- manipulating
- handling
- walking
- balancing
- standing
- turning
- stooping
- reaching
- pushing
- pulling
- lifting
- carrying

Related Concepts:

1. icing on a cake
2. mud pies

APPENDIX C

MEMORY JOGGER FOR PERFORMANCE TASK ACTIVITIES

For Identify and use tasks,

use terms like, describe, recognize, select, point-out, determine, or other action verbs.

T & I instructor should:

A. demonstrate the task visually:
B. demonstrate the task verbally.

RVI people should pick out the critical steps in the sequence.

Questions to be asked,

How
Where
How Much
When
What
Or other activities that are not described by these.

On task checks

For identify and use,

Example: Given an assortment of tools, student selects appropriate tool and demonstrates use of tool.

APPENDIX D

Essential Math Operation Terms: Memory Jogger

Counting

Adding

Subtracting

Multiplying

Dividing

Proportions (Parts of)

Fractional Members

Measurement to the inch, foot, yard, etc.

Liquid measures - cups, pints, quarts, gallons

Solid measures - cubic feet, cubic yards

Time measures - minutes, hours, days

Weight measures - ounce, pound, etc.

Geometric measures - angles, right angles, degrees, etc.

Any others you can think of.

APPENDIX E

(From Dictionary of Occupational Titles)

Essential Coordinated Movements

Setting Up: Adjusting machines or equipment by replacing or altering tools, jigs, fixtures, and attachments to prepare them to perform their functions, change their performance, or restore their proper functioning if they break down. Workers who set up one or a number of machines for other workers or who set up and personally operate a variety of machines are included here.

Precision Working: Using body members and/or tools or work aids to work, move, guide, or place objects or materials in situations where ultimate responsibility for the attainment of standards occurs and selection of appropriate tools, objects, or materials, and the adjustment of the tool to the task require exercise of considerable judgment.

Global

Operating-Controlling: Starting, stopping, controlling, and adjusting the progress of machines or equipment designed to fabricate and/or process objects or materials. Operating machines involves setting up the machine and adjusting the machine or material as the work progresses. Controlling equipment involves observing gages, dials, etc., and turning valves and other devices to control such factors as temperature, pressure, flow of liquids, speed of pumps, and reactions of materials. Setup involves several variables and adjustment is more frequent than in tending.

Driving-Operating: Starting, stopping, and controlling the actions of machines or equipment for which a course must be steered, or which must be guided, in order to fabricate, process, and/or move things or people. Involves such activities as observing gages and dials; estimating distances and determining speed and direction of other objects; turning cranks and wheels; pushing clutches or brakes; and pushing or pulling gear lifts or levers. Includes such machines as cranes, conveyer systems, tractors, furnace charging machines, paving machines and hoisting machines. Excludes manually powered machines, such as handtrucks and dollies, and power assisted machines, such as electric wheelbarrows and handtrucks.

Manipulating: Using body members, tools, or special devices to work, move, guide, or place objects or materials. Involves some latitude for judgment with regard to precision attained and selecting appropriate tool, object, or material, although this is readily manifest.

Tending: Starting, stopping, and observing the functioning of machines and equipment. Involves adjusting materials or controls of the machine, such as changing guides, adjusting timers and temperature gages; turning valves to allow flow of materials, and flipping switches in response to lights. Little judgment is involved in making these adjustments.

Feeding-Offbearing: Inserting, throwing, dumping, or placing materials in or removing them from machines or equipment which are automatic or tended or operated by other workers.

Handling: Using body members, handtools, and/or special devices to work, move, or carry objects or materials. Involves little or no latitude for judgment with regard to attainment of standards or in selecting appropriate tool, object, or material.

NOTE: Included in the concept of Feeding-Offbearing, Tending, Operating-Controlling, and Setting Up, is the situation in which the worker is

actually part of the setup of the machine, either as the holder and guider of the material or holder and guider of the tool.

Specific

Walking
Jumping
Running
Balancing
Climbing
Crawling
Standing
Turning
Stooping
Crouching
Kneeling
Sitting

Reaching
Lifting
Carrying
Throwing
Pushing
Pulling

CODE_____

VOCATIONAL AREA TRADE AND INDUSTRIAL EDUCATION

PROGRAM CONSTRUCTION TRADES

OCCUPATION MASONRY

INSTRUCTIONAL UNIT SPREADING MORTAR

PERFORMANCE TASK MIXING MORTAR

PERFORMANCE-BASED TASK ACTIVITIES

YOU WILL:

1. ADD CORRECT INGREDIENTS TO MORTAR BOX.
2. MIX INGREDIENTS TOGETHER.

WORDS

How To Spell	What It Means
MIXTURE	MADE OF MANY PARTS
INGREDIENTS	PARTS OF A MIXTURE
MORTAR	A MUD LIKE MIXTURE
MOTAR BOX	WHAT MORTAR IS MIXED IN
SAND	PART OF THE MORTAR MIXTURE
WATER	PART OF THE MORTAR MIXTURE
MASONRY CEMENT	PART OF THE MORTAR MIXTURE
CORATEX	CAN BE USED INSTEAD OF MORTAR MIX
TEMPER	MIXING ALL INGREDIENTS TOGETHER
CONSISTENCY	WHEN ALL THE PARTS ARE WELL MIXED
SHOVEL	A TOOL TO PICK UP SAND OR OTHER INGREDIENTS
WHEEL BARROW	AN OBJECT USED TO CARRY INGREDIENTS LIKE SAND OR MASONRY CEMENT
HOE	A HAND TOOL USED TO MIX MORTAR
MIXER	A MACHINE USED TO MIX MORTAR

You Will Learn To:

1. PUT SAND IN A MORTAR BOX
2. PUT MASONRY CEMENT INTO MORTAR BOX
3. MIX SAND AND MASONRY CEMENT
4. ADD WATER
5. MIX SAND, MASONRY CEMENT AND WATER

You Will Be Given:

SHOVEL

WHEEL BARROW

MORTAR BOX

SAND

MASONRY CEMENT

HOE

WATER

You Can Do This When:

YOU CAN MIX MORTAR TO A CORRECT CONSISTENCY.

WHAT YOU DO:

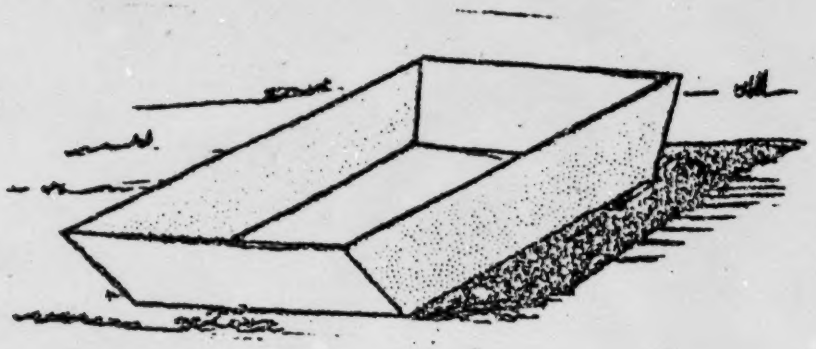
1. PUT SAND IN MORTAR BOX.

HERE IS A PICTURE OF A WHEEL BARROW

THE WHEEL BARROW IS USED TO CARRY SAND AND MASONRY CEMENT TO THE MORTAR BOX.

THIS IS A SHOVEL USED TO PUT SAND OR MASONRY CEMENT IN THE WHEELBARROW.

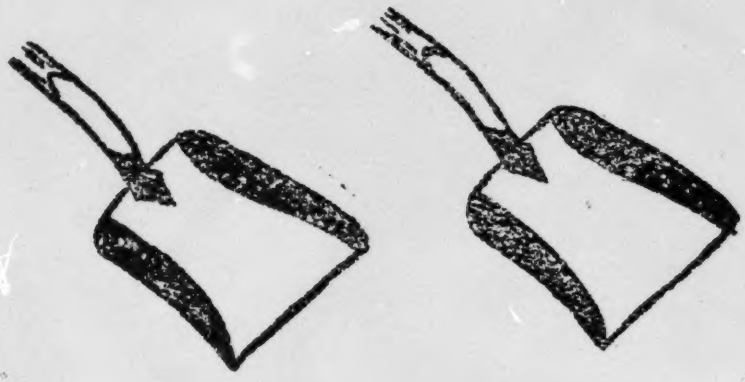
HERE IS A PICTURE OF A MORTAR BOX.



THE SAND, MASONRY CEMENT AND WATER ARE MIXED IN THE MORTAR BOX.

MORTAR IS A MIXTURE OF 3 PARTS SAND,

2 PARTS OF MASONRY CEMENT,



5

AND WATER.

NOW PUT 3 SHOVELS OF SAND INTO THE MORTAR BOX.

WHAT YOU KNOW:

1. MORTAR IS MADE OF _____

_____

_____

2. MORTAR HAS 2 PARTS OF _____

MORTAR HAS 3 PARTS OF _____

MORTAR ALSO USES _____

WHAT YOU DO:

2. PUT 2 SHOVELS OF MASONRY CEMENT INTO THE MORTAR BOX.

3. MIX SAND AND MASONRY CEMENT IN MORTAR BOX.

THIS IS A HOE.

THE HOE IS USED TO MIX THE SAND AND MASONRY CEMENT COMPLETELY, IN THIS WAY, UNTIL NO SAND CAN BE SEEN IN THE MIXTURE.

PULL HOE TO YOU.
MAKE SHORT CHOPS.
HIT BOTTOM OF MORTAR BOX WITH THE HOE.
LIFT AS YOU PULL MIXTURE TOWARD YOU.
THE MAN IN THE PICTURE MAKES SHORT CHOPPING STROKES AND PULLS THE SAND AND MASONRY CEMENT MIXTURE TO HIM. YOU WILL SOON HAVE ALL THE MIXTURE AT YOUR END OF THE MORTAR BOX. THEN GO TO THE OTHER END OF BOX AND BEGIN MIXING AGAIN.

WHAT YOU KNOW:

1. NUMBER THESE STEPS IN THE RIGHT ORDER:

____ HIT BOTTOM OF MORTAR BOX WITH HOE
____ MAKE SHORT CHOPS
____ LIFT AS YOU PULL
____ PULL HOE TO YOU

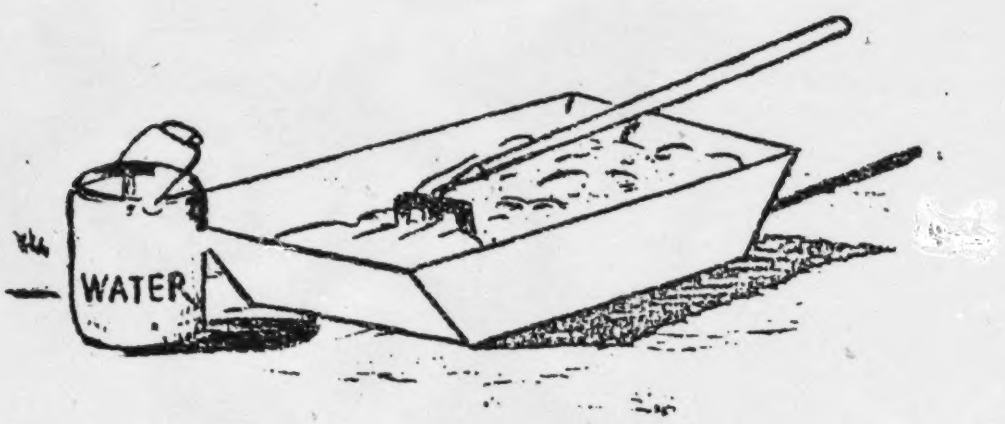
2. (TRUE OR FALSE) THE SAND AND MASONRY CEMENT ARE COMPLETELY MIXED WHEN NO SAND CAN BE SEEN.

ANSWERS

1. 3
   2
   4
   1
2. TRUE

WHAT YOU DO:

4. POUR A LITTLE WATER INTO THE MORTAR BOX.



NOW COMPLETELY MIX THE WATER, SAND AND MASONRY CEMENT AGAIN.

5. NOW ADD MORE WATER AND MIX AGAIN, UNTIL THE MIXTURE LOOKS LIKE THICK MUD OR ICING FOR A CAKE. (CHECK WITH YOUR TEACHER FOR CORRECT CONSISTENCY OF MORTAR.)

WHAT YOU HAVE LEARNED:

1. MORTAR IS MADE OF _____

   _____

   _____

2. MORTAR HAS 2 PARTS OF _____

   MORTAR HAS 3 PARTS OF _____

   MORTAR ALSO USES _____

3. NUMBER THESE STEPS FOR MIXING THE MORTAR:

   ____ MAKE SHORT CHOPS
   ____ LIFT AS YOU PULL
   ____ PULL HOE TO YOU
   ____ HIT BOTTOM OF MORTAR BOX WITH HOE

4. (TRUE OR FALSE) THE SAND AND MASONRY CEMENT ARE COMPLETELY MIXED WHEN NO SAND CAN BE SEEN.

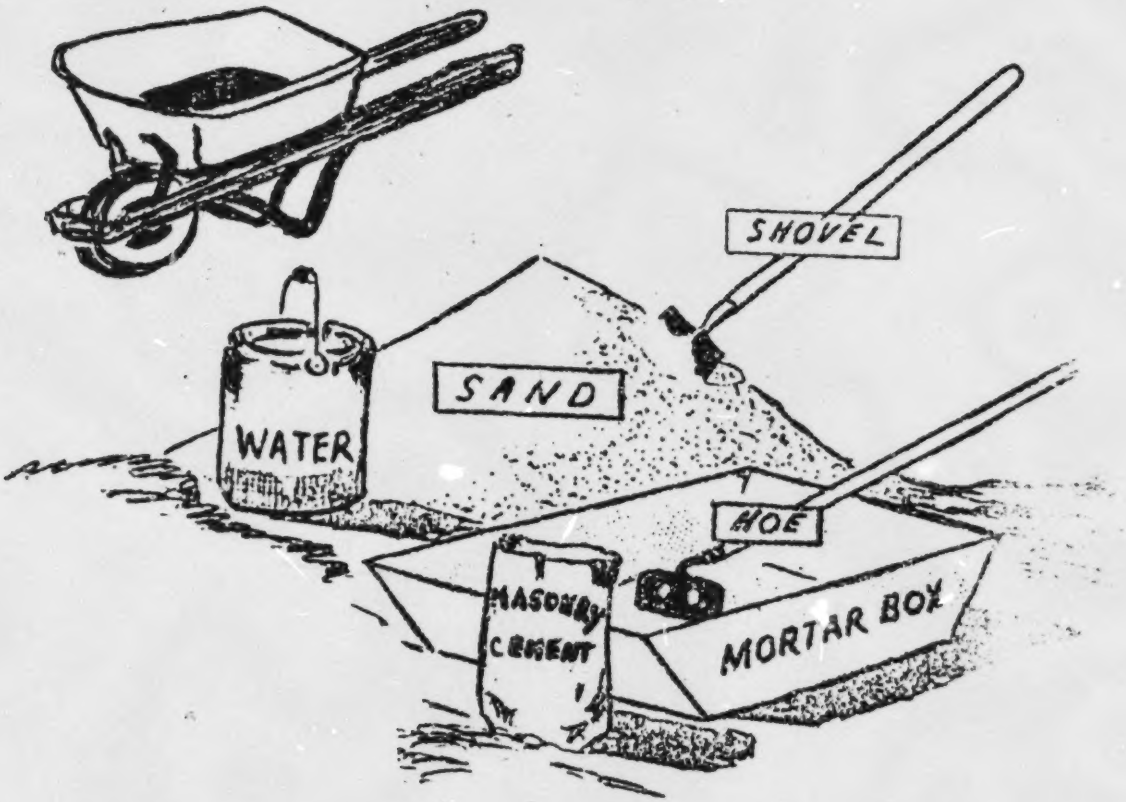
5. (TRUE OR FALSE) WATER IS ADDED TO THE SAND AND MASONRY CEMENT IN SMALL AMOUNTS.

6. MORTAR MIXED CORRECTLY SHOULD LOOK LIKE
   A. THICK MUD
   B. SOUP

7. NUMBER THE STEPS BELOW IN THE ORDER THAT YOU DO THEM.

   ____ PUT SAND IN MORTAR BOX
   ____ ADD WATER
   ____ ADD MASONRY CEMENT TO THE MORTAR BOX
   ____ MIX SAND, MASONRY CEMENT AND WATER
   ____ MIX SAND AND MASONRY CEMENT

MIXING MORTAR



APPENDIX G

Soc. Sec. No. _____

SPECIAL VOCATIONAL NEEDS ATTITUDE SCALE

The following attitude scale is divided into three major categories entitled Disadvantaged, Handicapped, and Minorities. Under each category read the statements carefully and respond by circling one of the headings located to the right of each statement. The headings are:

SA - Strongly Agree
A - Agree
MA - Moderately Agree
MD - Moderately Disagree
D - Disagree
SD - Strongly Disagree

HANDICAPPED

1.	With the current trend in industrial technology, there are going to be fewer jobs that handicaps can fill.	SA	A	MA	MD	D	SD
2.	It's unfair to the handicapped student to put him in a classroom with normal children.	SA	A	MA	MD	D	SD
3.	The most important principle in teaching the handicapped is to protect them against failure.	SA	A	MA	MD	D	SD
4.	Having a handicapped child is the price some people pay for evil living.	SA	A	MA	MD	D	SD
5.	As properly conceived programs of special education grow, handicapped students will find more employment opportunities.	SA	A	MA	MD	D	SD
6.	Because of their condition, the handicapped are easily led into criminal ways.	SA	A	MA	MD	D	SD
7.	It must be hard to forgive yourself if you have a child who is handicapped.	SA	A	MA	MD	D	SD
8.	Much more money should be spent on research into the causes of various handicaps.	SA	A	MA	MD	D	SD
9.	We need more laws for the protection of persons who are handicapped.	SA	A	MA	MD	D	SD
10.	Decent parents are just as likely to have a handicapped child as any other parent.	SA	A	MA	MD	D	SD

11.	It seems unjust to spend twice as much money for educating a handicapped student than for a normal child.	SA	A	MA	MD	D	SD
12.	A handicapped person can live just as happy of life as a normal person.	SA	A	MA	MD	D	SD
13.	Most of our social problems would be solved if we could somehow get rid of the handicapped person.	SA	A	MA	MD	D	SD
14.	It is unfair to the normal students to have handicapped students in the same classroom.	SA	A	MA	MD	D	SD
15.	A handicapped person can live just as useful a life as a normal person.	SA	A	MA	MD	D	SD
16.	I could see myself having a handicapped person as a true friend.	SA	A	MA	MD	D	SD
17.	I'd rather have a child born dead than handicapped.	SA	A	MA	MD	D	SD
18.	I would trust a handicapped person as a babysitter.	SA	A	MA	MD	D	SD
19.	If I had a handicapped child, I'd feel ashamed.	SA	A	MA	MD	D	SD
20.	For the handicapped, kindness is more important than any educational program.	SA	A	MA	MD	D	SD
21.	Handicapped students are inclined to be behavior problems.	SA	A	MA	MD	D	SD
22.	Public school special education classes for handicapped learners should be located in regular school buildings, not in a building away from the regular school.	SA	A	MA	MD	D	SD
23.	Handicapped learners have the same right to an education as normal children.	SA	A	MA	MD	D	SD
24.	The best place for the care of the handicapped student is in the home.	SA	A	MA	MD	D	SD
25.	I would rather see handicapped students enrolled in public school classes than see them enrolled in mental institutions.	SA	A	MA	MD	D	SD
26.	Handicapped students are usually better off in mental institutions.	SA	A	MA	MD	D	SD

27.	I believe that a good regular classroom teacher should be able to provide her handicapped pupils with many valuable and worthwhile experiences.	SA	A	MA	MD	D	SD
28.	For the teacher, there is very little intellectual stimulation from handicapped learners.	SA	A	MA	MD	D	SD
29.	Most handicapped students cannot be trusted.	SA	A	MA	MD	D	SD
30.	It is a waste of the taxpayer's money to attempt to teach handicapped students within the regular classroom.	SA	A	MA	MD	D	SD
31.	I believe that teaching handicapped students would be very rewarding.	SA	A	MA	MD	D	SD
32.	I generally feel rather uncomfortable around handicapped pupils.	SA	A	MA	MD	D	SD
33.	Students that disrupt regular classes are probably handicapped and should be placed in special classes.	SA	A	MA	MD	D	SD
34.	If I were an employer, I would hire a handicapped person.	SA	A	MA	MD	D	SD

APPENDIX H

Proposed Monitor's Handbook for Assessing the Effectiveness of The Related Vocational Instruction Program

Developed by

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Introduction

The Related Vocational Instruction Program is designed to combine the services of special and vocational education in an effort to assist the handicapped secondary learner in becoming self-sufficient. The program's central focus, then, is on the handicapped learner's attainment of a marketable skill at the close of his high school career. This process is aided in five major ways:

(1) An interest and aptitude assessment of student vocational abilities
(2) The construction or amending of relevant Individual Education Plans (IEPs)
(3) The establishment of working relationships between special and vocational educators
(4) Resource classroom instruction related to vocational skill building in conjunction with actual vocational laboratory instruction, and
(5) The effective use of ancillary agencies.

The Related Vocational Instruction Program was developed to be in compliance with Public Laws 94-142 and 94-482, and matches state and federal dollars to accomplish its purpose. The state match involves the LEA's identification and utilization of an existing special education teaching slot to fulfill a state approved job description for this program. The federal match is accomplished through a grant amount of money placed on top of each identifical teaching slot.

The program concept of delivery of services is "team teaching" in nature. The designated special education teacher for this program has as his or her major duty to provide Related Vocational Instruction to individual handicapped students enrolled in reimbursable vocational education programs, as well as providing resource assistance to vocational instructors in whose program the identified students are enrolled. This program should reflect primarily a mainstreaming thrust into vocational education as opposed to pre-vocational or work-study types of thrusts.

There are seventy-two Related Vocational Instruction Programs located throughout Georgia, and each program maintains a manual for periodic inspection at the local level. The role of the monitor is to rate each program according to the criteria that follows in this handbook, and the appraisals will be utilized to upgrade the effective delivery of services to handicapped youth at the secondary level. Thank you very much for your cooperation.

Instructions for Completing Program Rating Sheets

Please check (✓) each item as it relates to the program you are visiting. Some items on the rating sheet require a "yes" or "no" response or entering numbers. Others require you to rate to what degree a task is being accomplished. Before you rate an item, however, you should see some type of evidence that demonstrates or justifies your rating.

The results of your ratings will be tabulated by appropriate personnel once the monitoring process is complete, and a point value assigned to the rating sheet. These tabulated results will then be shared with LEA and other persons responsible for the implementation of this program.

Monitor's Rating Sheet for the
Related Vocational Instruction Program

Date_____

System_____

School_____

Related Vocational Instructor_____

1. General Concerns:

   1. Number and type of handicapped students served (enter number)
      _____Mentally Retarded
      _____Learning Disabled
      _____Behavior Disordered
      _____Orthopedically Impaired
      _____Visually Impaired
      _____Hearing Impaired
      _____Speech Impaired
      _____Health Impaired
      _____Multi-Handicapped
      _____Total

   2. Number of students enrolled in Reimbursable Vocational Education Programs (enter number)
      _____Agricultural Education
      _____Business and Office Education
      _____Consumer and Homemaking Education
      _____Distributive Education
      _____Industrial Arts Education
      _____Trade and Industrial Education
      _____Diversified Cooperative Training
      _____Total

   3. Number of students provided Individual Education Plan (IEP)_____.

   4. Number of students receiving assistance from ancillary agencies within the community

Number of Students	Agency
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____TOTAL	

5. Number of students enrolled by grade classification
   _____9th Grade
   _____10th Grade
   _____11th Grade
   _____12th Grade
   _____TOTAL

6. Number of students placed in program through local system special education selection committee _____. If this number does not correspond with number of students enrolled in program, have explained.

   _____
   _____
   _____
   _____

7. Level and Area of Related Vocational Instructor's certification (teacher) in Georgia _____.

8. Instructional equipment purchased through the federal grant to assist in the implementation of this program are available and in use? ☐ yes ☐ no

9. Instructional materials utilized in this program reflect what type of thrust?
   ☐ prevocational ☐ academic ☐ vocational

10. A teacher aide is utilized exclusively in conjunction with this program?
    ☐ yes ☐ no ☐ full-time ☐ part-time

11. Selected instructional support personnel not otherwise available in the system have been utilized? ☐ yes ☐ no

12. A. Related Vocational Instructor is on extended day and/or year contract?
    ☐ yes ☐ no

    ☐ extended day

    ☐ extended year

    *B. Teacher aide is on extended day and/or year contract?
    ☐ yes ☐ no

    ☐ extended day

    ☐ extended year

    *if Applicable

13. Related Vocational Instructor and/or aide has travel money available?
☐ yes ☐ no

14. Program personnel have participated in all appropriate staff development to date? ☐ yes ☐ no

15. Adequate space and facilities have been provided to implement program?
☐ yes ☐ no

16. Local system personnel aware of Related Vocational Instructional Program goals? ☐ yes ☐ no; Objectives? ☐ yes ☐ no; and Delivery of services? ☐ yes ☐ no

II. Specific Considerations for Program Implementation

II. A. 1. List of the basic requirements for entry and participation in vocational education programs is utilized by the Related Vocational Instructor in planning and setting individual student goals.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

2. Vocational education programs are being modified to accommodate individual handicapped learners.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

3. Commercial Instructional materials relating to the learner's entry and participation in vocational education programs are available and in use.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

4. The instructional media, materials and equipment utilized in the vocational area are adapted to suit individual student needs.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

5. Related classroom instruction as outlined by the appropriate vocational instructor is provided.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

6. Vocational instructors have been assisted in evaluating whether or not individual learners are meeting the long and short range objectives outlined in the IEP.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

7. A positive working relationship between the Related Vocational Instructor and area vocational teachers is demonstrated.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

8. Vocational instructors implementing aspects of the IEP are monitored and counseled by the Related Vocational Instructor.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

**9. Once student has obtained a salable vocational skill, appropriate job placement strategy has been determined.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

**10. Once student has been placed on job site, instruction relevant to the individual placement is provided, as needed.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

TOTAL POINTS EARNED _____

**Rate only when applicable. Student should have obtained a marketable skill prior to placement.

.II. B.1. Student Individual Education Plan reflects aspects of vocational development.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

2. Individual learner's vocational interest and aptitude has been identified and considered in the development of the IEP.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

3. Both long and short term objectives demonstrate input from vocational area instructors.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

4. IEPs have been monitored and effectively updated.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

5. Local agencies that can assist in determining student vocational interest and aptitude have been utilized.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

6. Related Vocational Instructor provides vocational interest and aptitude assessment as needed.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

***7. Paraprofessional or teacher aide provides tutorial service under supervision of Related Vocational Instructor.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

***8. Paraprofessional or teacher aide provides tutorial service under supervision of vocational teacher to program participants.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

***9. Paraprofessional or teacher aide appropriately selects and utilizes available instructional materials.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

***10. Paraprofessional or teacher aide periodically assesses effectiveness of tutorial sessions under supervision of appropriate teacher.

Poor	Less than Adequate	Adequate	More than Adequate	Excellent

(Check one)

Points earned _____

***Rate only if teacher aide or paraprofessional is utilized in program.

Signed:

_____
(Monitor)

Date _____

APPENDIX I

CODE_____

VOCATIONAL AREA _____

PROGRAM _____

OCCUPATION _____

INSTRUCTIONAL UNIT _____

PERFORMANCE TASK _____

PERFORMANCE-BASED TASK ACTIVITIES

YOU WILL:

WORDS

How To Spell	What It Means

YOU WILL LEARN TO:

YOU WILL BE GIVEN:

YOU CAN DO THIS WHEN:

WHAT YOU DO:

What You Know:

WHAT YOU HAVE LEARNED:

APPENDIX J

RVI INTERNSHIP
TASK LISTING FORMAT

Vocational Area

Program

Occupation

INSTRUCTIONAL UNITS:

TASKS:

TASKS:

APPENDIX K

RVI INTERNSHIP

In-Service Evaluation Format

1. Objective of In-Service Session:

2. Participants:

3. Length:

4. In-Service Coordinator and Instructors:

5. Activities:

6. Evaluation and Outcomes: